



**ANDERSEN AFB
GUAM**

**ADMINISTRATIVE RECORD
COVER SHEET**

AR File Number 361

**ANDERSEN AIR FORCE BASE
RESTORATION ADVISORY BOARD (RAB)
MINUTES OF MEETING - 16 October 1997
Top of the Rock, Andersen AFB**

MEMBERS PRESENT: Col. T. McGoldrick - Installation co-chair
Sen. J. Brown - Community co-chair
Mr. J. Jenson - RAB Member
Mr. F. Castro - RAB Member
Mr. N. Rodriguez - RAB Member
Mr. M. Gawel - RAB Member
Mr. J. Flores - RAB Member
Mayor N. Blas - RAB Member
Mr. E. Artero - RAB Member
Ms. E. Esplana for Mayor R. Lizama - RAB Member
Mr. M. Chargualaf - RAB Member
Mr. S. Bellrichard for V. Wuerch - GEPA
Ms. J. Poland - AAFB

MEMBERS ABSENT: Mr. M. Ripperda - USEPA
Sen. M. Charfauros - RAB Member
Mr. M. Stacy - RAB Member
Ms. J. Duwel - RAB Member
Mr. J. Iglesias - RAB Member
Mr. V. Blaz - RAB Member
Ms. C. Dimarucut - RAB Member
Mr. D. Cruz - RAB Member

PUBLIC ATTENDEES: Mr. T. Churan - AAFB
Ms. R. Perez - Sen. Brown's Office
Mr. G. Ikehara - AAFB
Mr. J. Torres - AAFB
Ms. M. Miclat - AAFB
Ms. M. Torres - community
Mr. J. Hill - AFCEE
Dr. M. Rodriguez
Dr. J. Rosacker - Booz-Allen Hamilton
Mr. B. Oxford - Booz-Allen Hamilton
Mr. P. Ono - OHM
Mr. B. Gilkison - OHM
Mr. J. Lazzeri - EA Pacific
Mr. R. Glascott - MW Pacific
Mr. M. Price - EA Pacific
Mr. T. Ghofrani - EA Pacific
Mr. S. Olive - EA Pacific

Col. Timothy McGoldrick, Installation co-chair, opened the meeting at 6:50 p.m. He introduced himself to the Restoration Advisory Board (RAB) members and briefly described his previous experience with another RAB. Senator Joanne Brown, community co-chair, welcomed the RAB members and introduced the two new members, Margot Murphy of Soroptimist International of the Marianas, and Melissa Sablan from Guam Economic Development Authority.

I. REVIEW OF OLD BUSINESS

The minutes of the 15 May 1997 meeting were reviewed and approved unanimously without changes. Members discussed the joint U.S. Navy and U.S. Air Force workshop for RAB members, held in August. They expressed their satisfaction with the progress of the Andersen Air Force Base (AAFB) RAB and said that they were pleased with AAFB's efforts to involve the community.

II. FIELDWORK UPDATE/PRESENTATION

A. Groundwater

Groundwater: Gregg Ikehara presented the status of the groundwater monitoring and analysis. He said that the Focused Feasibility Study report for groundwater and the Proposed Plan for the MARBO Annex are final. He reported that the MARBO Annex Proposed Plan integrates solutions for the groundwater and surface investigations.

Mr. Ikehara presented the groundwater sampling results from the Spring of 1997. He reported that wells GPA-1 and IRP-31 at the MARBO Annex and IRP-3, IRP-39, IRP-50, and IRP-51 at the Main Base had concentrations of TCE above 5 ppb (the Maximum Contaminant Level [MCL] for TCE). Wells IRP-14 and IRP-29 at the MARBO Annex and IRP-39 at the Main Base had concentrations of PCE above 5 ppb (the MCL for PCE). All other groundwater samples either had non-detect TCE or PCE or concentrations less than 5 ppb. Mr. Ikehara reported that these concentrations are consistent with previous sampling results. Fred Castro asked if the Air Force was monitoring other constituents in the wells, and if so were other constituents of concern (COCs) detected. Mr. Ikehara responded that other COCs are monitored, but none of them exceeded their MCLs.

Mr. Castro also asked if the data that Guam Power Authority (GPA) collects from its monitoring wells were used in AAFB's analyses. Mr. Ikehara answered that AAFB collects its own samples at GPA's wells and other wells in the area, but has not used data collected by GPA. He noted that the monitoring wells installed by AAFB were designed to provide samples at different levels and were placed in areas where the COCs of concern were most likely to be detected. He added that he is confident that AAFB is getting representative groundwater samples.

Mr. Ikehara reported that AAFB is collecting the next round of groundwater samples this October and November 1997. In addition, AAFB is updating the Groundwater Monitoring Plan.

B. Northwest Field Operable Unit

1. Waste Pile 4: Mr. Ikehara provided an overview of Northwest Field environmental investigations. He described Waste Pile 4 where small arms and munitions were burned in an incinerator (e.g., bomb fuses, flares, mortars, and 50-caliber bullets). He said that the incinerator was used twice in the 1980's and is still in relatively good condition. He described the area as being forested with piles of munitions around the site. He said that the dense vegetation and presence of unexploded ordnance (UXO) make this a very sensitive area to conduct field work. The other debris in the area is heavily deteriorated. The constituents of concern are metals (e.g., chromium, mercury, manganese, beryllium, arsenic, thallium, and aluminum) and PAH, which was present in one soil sample. He stated that AAFB will remove the UXOs and properly dispose of them.

Senator Brown asked what was the timetable to remove the UXOs and how will the difficulty of finding UXOs in the area impact the environmental investigation schedules. She also inquired if the UXOs were scattered all over the site. Joan Poland said she has requested funds from PACAF for FY98 to clean up the UXOs at the site. If these funds are approved, cleanup will start in 1998. She stated that AAFB also needs to negotiate with the Guam Environmental Protection Agency (GEPA) on how the UXOs will be transported off the site. Mr. Ikehara added that the disposal of the UXOs will also need to be negotiated with GEPA because disposal facilities are limited. Mr. Ikehara said that it is difficult to know for sure how much munitions are at the site because the site is densely vegetated, but at the moment he does not anticipate significant delays. He said that it is a relatively small area. The munitions that have been found were in piles all around the site, not scattered.

Mayor Nonito Blas asked if the area is a restricted area and if it is part of the excess land to be transferred to GovGuam. Mr. Ikehara responded that it is a secluded area and is not designated as excess land.

Jerry Flores asked if the munitions were unexploded or remnants of exploded ordnance. Mr. Ikehara answered that both are present at the site, but most were unexploded.

2. Landfill 26: Mr. Ikehara stated that this site contains metal debris. He said that soil gas surveys are being conducted at this site to evaluate the if volatile organic compounds are present.

3. Chemical Storage Area 4: Mr. Ikehara reported that field work has started at this site. The boundaries of the site are being established and grid lines are being constructed. Soil samples will be collected soon. This site contains metal debris, deteriorated drums and has the potential to have UXOs.

4. Landfill 21: Mr. Ikehara reported that small amounts of lead were present in some soil samples from this site. Samples are being taken in outlying areas of the site to evaluate the boundary of the soil containing lead.

C. Main Base Operable Unit

1. Firefighter Training Area 2: Marriane Miclat recapitulated the removal of the tanker trailer from this site. She said that more soil samples will be collected to evaluate if fuel products are in the soil. Once the sample results are complete, cleanup alternatives will be developed.

2. Hazardous Waste Storage Area 1: Ms. Miclat reported that TCE and PCE were detected in low concentrations in soil gas points on this site. Environmental investigations are continuing.

3. Waste Piles 1 and 2: Ms. Miclat said that this site contains 7,900 drums of asphalt. Preparations to remove the tar have begun and will take about a year to complete. The asphalt removed from the site will be recycled. Senator Brown asked how much asphalt is at the site, how will the recycled asphalt be used, and how old is the asphalt. Ms. Poland said that the asphalt will be given to GovGuam to pave the road from the main gate down to the traffic light in Yigo. The remainder will be used to pave part of the road out the back gate. She added that the asphalt has been at this site since the construction of the runways in 1945.

Steve Bellrichard asked where the asphalt was and how to get to it. He also asked if it will be characterized. Ms. Poland said that the asphalt is in deteriorating drums in the waste pile and the dense vegetation will have to be cleared to get to the drums. In addition, she said that the asphalt will be categorized according to its quality. The quality of the asphalt will determine how it can be used. John Jenson inquired how much it will cost to remove it and how much is it worth. Ms. Poland said that it will cost \$4 million to remove the asphalt and its value will depend on its quality.

4. Landfill 14: Ms. Miclat stated that additional soil samples are being collected to delineate the horizontal extent of the landfill.

5. PCB Storage Area: Ms Miclat reported that confirmatory samples are being collected at this site. AAFB expects this site to move towards a No Further Response Action Plan (NFRAP) pending the results from the samples.

D. MARBO Operable Unit

Overall Status: Jess Torres reported that the soil and groundwater Remedial Investigation (RI) and Feasibility Study (FS) reports are complete. He announced the public comment period for the Proposed Plan to be from October 10 to November 10. He also announced the public meeting for the Proposed Plan on 24 October 1997 at 6:00 p.m. at the Marianas Ballroom I, Guam Hilton.

Mr. Torres said that the final cleanup decision can be the alternative recommended in the Proposed Plan, another alternative that is evaluated in the Proposed Plan, or another alternative yet to be identified if public comments indicate a need to generate other alternatives.

Mr. Torres said that the Proposed Plan recommends: no further action at Waste Pile 5 and the War Dog Borrow Pit; soil removal at Waste Pile , Landfill 29, and MARBO Laundry; and soil cover at Waste Pile 7. For groundwater, the plan recommends natural attenuation with wellhead treatment (air stripping) at MW-1, MW-2 and MW-3 and land use restrictions for groundwater at the annex. He said the cost to monitor the groundwater will be \$217,000/year. He added that the groundwater monitoring plan will be updated after four sampling events.

Mr. Castro asked at what level the final decision is made. Ms. Poland responded that the final decision is signed by PACAF.

Senator Brown said that she is very concerned about the recommended alternative that will leave constituents of concern in the ground at Waste Pile 7. She said that she prefers absolute cleanup where possible. She expressed concern over having this site and other sites left with constituents that will restrict development in these areas. She stated that she was pleased that no other soil will be consolidated at this site, but restated her recommendation not to leave any constituents of concern in the ground, even if the risk of exposure has been reduced. She added that she understands soil removal at Waste Pile 7 may cost as much \$40 million, but she reiterated her preference for absolute cleanup and for no constituents to be left in the ground that will restrict future development.

Mike Gawel asked if there will be another air stripper constructed. He said that he heard that the current air stripper was not working. Mr. Torres said that there are no plans to build another air stripper. Ms. Poland added that the air stripper is down at the moment, but will be operating again soon.

Jerry Flores asked Mr. Torres to elaborate more on natural attenuation and how is it different from air stripping. Mr. Torres said that natural attenuation allows the natural movement of the groundwater in the groundwater lens to flush itself out over time, thus reducing the concentrations of PCE and TCE. He said this is different from air stripping which is a mechanical technology that helps to clean out PCE and TCE.

E. Harmon Annexes Operable Unit:

1. IRP Sites: Ms. Poland reported that cleanup activities will start at the end of the month at Harmon Substation and Landfill 24. These will be hot spot removals. She stated that a NFRAP will be prepared for Landfill 23 because no evidence of landfilling and no constituents of concern were found at this site.

2. Groundwater Sampling: Ms. Poland stated that the third round of groundwater samples will be collected in October and November at the new and existing wells. She reported that to date, no COCs were detected in any of the samples.

F. Environmental Baseline Survey

Ms. Poland said that FY98 funding to cleanup Public Law 103-339 Areas of Concern (AOCs) should arrive soon. Limited remediation will start at six areas at Harmon and one at Camp Edusa as soon as the funds arrive. Soil will be removed from the pits, soil samples will be collected at the bottom of the pits and the pits will be filled with clean soil.

At the Urunao Beach Dump Sites, Ms. Poland reported that UXOs have been found, but no COCs. She added that no evidence of leaching from the site has been observed.

Mr. Castro asked if the old Record of Decision (ROD) and Environmental Impact Statement (EIS) were being followed that called for the property to be acquired, fenced, and investigated. Ms. Poland said that AAFB is waiting on the sampling and analysis to be completed before deciding on the next steps. Her main concern is to determine if any COCs are leaching out from the site. Once the results are evaluated, AAFB will negotiate with the landowners.

Edward Artero said that his family would like to know what the sample results are and what are the next steps. He said that they have not seen anything in writing for quite some time. Ms. Poland responded that a letter, providing a status report, was sent to the family approximately two months ago. She said that she will see to whom the letter was sent and follow up with Mr. Artero. She said that she will ensure that the Artero family continues to receive status reports.

III. ACTION ITEMS

A. Public Projection Plans

Ms. Miclat announced that the IRP is updating the Community Relations Plan prepared in 1993. She reported that 27 people were interviewed in May and June of this year to gather information to update the plan.

She said that several of the people interviewed requested cleanup schedules for the sites. She stated that there are a lot of variables that affect the cleanup schedule, such as Waste Pile 4 (UXOs) and the Harmon Annex (prioritized because of land transfer issues). She announced that the newsletter handed out at the meeting had some timelines in it.

Ms. Miclat also discussed the community's concern of land usability after the cleanup activities are complete. She reported that most of the sites will meet the more stringent guidelines which are the Residential Preliminary Remediation Goals (PRGs) instead of the less stringent, Industrial PRGs. Other concerns raised during the interviews were the need to protect the environment and assurance that environmental regulations would be followed.

Ms. Miclat reported that with the update of the Community Relations Plan, the program will fulfill all of the regulatory requirements. She said that the IRP has also conducted supplemental community relations activities such as the RAB, a brochure, a video, fact sheets, newsletters, exhibits during Earthweek, and a Speaker's Bureau. She said that press releases are issued before each RAB meeting. Fact sheets and newsletters are distributed at RAB meetings and in the community. He announced that a fact sheet on the MARBO Annex will

be coming out soon. Several articles have been submitted to the *Man, Land, and Sea* and the Soroptimist International of the Marianas newsletters. The IRP has also sent a letter to the Department of Education to announce the availability of speakers from the IRP to give presentations in the schools.

Ms Miclat stated that the interviewees recommended that representatives from the AAFB, the IRP, and the RAB appear on a Talk Radio show. She said that RAB member Julie Duwel has invited them to her program. She also reported that interviewees recommended conducting a workshop for media representatives. Ms. Miclat said that the IRP tried to put together a media workshop recently, but the media was disinterested. Media representatives said that they could not commit their reporters to a workshop that would last two and half hours because the issues were not considered to be news worthy.

Ms Miclat also reported that interviewees recommended more site tours. She said one was conducted a couple of years ago for RAB members and that one was going to be conducted for the participants in the media workshop. Ms. Miclat added that interviewees suggested using networks like the Society for Military Engineers to disseminate information.

Mr. Chargualaf asked if the IRP will establish a website. Ms Miclat responded that the IRP is looking into establishing one.

B. Relative Risk Assessment Workshop

Dr. Mark Rodriguez presented a summary of the risk assessment process. He explained that risk assessment is a way to estimate the possibility that something can harm people, plants, and animals. The key question answered by a risk assessment is: Are people, plants, and animals now and in the future at risk if no cleanup is performed? He said that the necessary elements for risk include the source, pathways, and receptors.

Dr. Rodriguez said that the regulatory basis for risk assessment comes from CERCLA, which is administered by USEPA. USEPA is mandated to protect human health and the environment. USEPA has incorporated risk assessment into the Superfund program, set PRGs, and developed an environmental evaluation manual.

Dr., Rodriguez explained the risk assessment process. The first step is to analyze the contamination. This step includes: identifying the source; determining the concentration; and determining if the concentration is more than what is naturally present in the area.

The second step is to compare the concentrations to the Preliminary Remediation Goals (PRGs). Dr. Rodriguez explained what that PRGs are chemical concentrations that are protective of human health. PRGs are established by considering health effects, standard exposure factors, and risk calculations. He stated that concentrations below PRGs will not effect human health. If the concentration exceed PRGs, then risk calculations are done to determine the risk to human health.

The third step is to characterize the risk at the site. This step involves characterizing the non-cancer and cancer risks to people if no cleanup is done.

This process of gathering human health and ecological risk information assist in making good health protective decisions that are cost effective. Using this information, human health risks can be estimated, remediation goals can be developed, and alternate cleanup procedures can be evaluated.

Dr. Rodriguez then discussed the risk assessment for the IRP sites at the MARBO Annex. He used Waste Pile 6 as an example. He reviewed the potential cancer and non-cancer risks for the material in Waste Pile 6. He stated that cleanup action is warranted when: (1) cancer risk is greater than one in ten thousand; (2) non-cancer risk (Hazard Index) is greater than 1.0; (3) harm to the ecosystem is expected; or (4) Federal drinking water standards are exceeded. He said that cleanup decisions also depend on how the property will be used in the future. He reported that the materials in Waste Pile 6 pose potential excess lifetime cancer and non-cancer risks if nothing is done at the site. If the asphalt, batteries, metal debris, roofing material, drums, and the impacted soil are removed in Waste Pile 6, the risks will also be removed.

Dr. Rodriguez explained the recommended remedial options for the other sites at the MARBO Annex and showed how these actions will eliminate risk to people.

Waste Pile 7 - soil cover to block the exposure pathway

Landfill 29 - soil removal to remove the contamination

MARBO Laundry - soil removal to remove the contamination

War Dog Borrow Pit - no further action necessary

Waste Pile 5 - no further action necessary

Dr. Rodriguez summarized the risk assessment process for the MARBO Annex. His main points were: (1) Remedial options are protective of human health and the environment; (2) the main issue is to eliminate the source or exposure pathway; and (3) the risk assessment followed U.S. Environmental Protection Agency (USEPA) and Guam Environmental Protection Agency (GEPA) standards.

Mr. Castro asked for more information about risk assessments for ecosystems. Dr. Rodriguez said the risk assessments examined closely the potential risks to endangered species. He reported that the bioaccumulation of constituents in earthworms is used as a comparison to measure risks to other species. He said that the risks to ecosystems associated with the constituents at the MARBO Annex were very low because of the low concentrations and the lack of exposure pathways. He added that the habitat at the MARBO Annex is dominated by alien species and is no longer a natural habitat.

IV PUBLIC COMMENT

Mayor Nonito Blas asked if AAFB will cleanup the dump site on land near Hawaiian Rock that AAFB turned over to Guam Community College (GCC). He wondered why AAFB did not clean it up before transferring it. He said that he would like to have this place cleaned up. Ms. Poland responded that this can be an action item for the next meeting. She said that she

believes that the land was clean when it was turned over to GCC, but since then illegal dumping has occurred. She said that she will look into this issue before the next meeting.

VI. ADJOURNMENT

Col. McGoldrick solicited action items for the next meeting. The dump site on the land turned over to GCC will be discussed. He announced that the next meeting will be on 15 January 1998. He adjourned the meeting at 8:15 p.m.

APPROVED/DISAPPROVED

COLONEL Timothy McGoldrick
Installation Co-Chair
Restoration Advisory Board

Date

SENATOR JOANNE SALAS BROWN
Community Co-Chair
Restoration Advisory Board

Date

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE